REMARKS

Claims 1-20 are pending in the application. Claims 1, 6 and 10 have been amended herein. Favorable reconsideration of the application, as amended, is respectfully requested.

I. REJECTION OF CLAIMS 1-20 UNDER 35 USC §102(b)

Claims 1-20 stand rejected under 35 USC §102(b) based on newly cited *Miyazaki et al.* Applicants respectfully request withdrawal of the rejection for at least the following reasons.

Applicants have amended claims 1 and 10 to emphasize the particular aspect of the frontlight component in the present invention. For example, claim 1 recites *inter alia*:

> a second photodetection device for *detecting frontlight which is a portion of the light emitted from the light source* and outputting a second signal;
>
> ***
>
> an amplitude fluctuation detection section for detecting an amplitude fluctuation amount *of the second signal*, and if the amplitude fluctuation amount exceeds a predetermined value, changing driving characteristics of the light source driving section

Support for such claim amendments may be found, for example, in the present specification at page 23, lines 4-13.

Notably, the amplitude fluctuation detection section detects an amplitude fluctuation amount of the *second signal*, the second signal being that produced based on the detection of the *frontlight* by the second photodetection device. *Miyazaki et al.* simply does not teach or suggest detecting amplitude fluctuation of the signal produced by detecting the frontlight as claimed. This is because *Miyazaki et al.* does not address or solve the problems overcome by the present invention.

The optical disk apparatus and method of the present invention are directed towards reducing scoop, or the fluctuations in the output power of the laser. Scoop is

caused by light being returned to the laser. When the light returned to the laser increases, the output of the laser may either increase or decrease depending on the phase difference between the outgoing light from the laser and the reflected light from the optical disk.

In order to reduce scoop, the optical disk apparatus of the present invention includes a second photodetection device for detecting frontlight. The frontlight is a portion of the light emitted from the light source, and the second photodetection device outputs a second signal. Applicants note that by being directed towards frontlight, the second photodetection device is not concerned with light which is reflected from the optical disk.

The claimed invention further includes an amplitude fluctuation detection section for detecting an amplitude fluctuation amount of *the second signal*. If the amplitude fluctuation amount of *the second signal* exceeds a predetermined value, driving characteristics of the light source driving section are changed.

The Examiner asserts that the front photodetector 4 (Fig. 2) in *Miyazaki et al.* corresponds to the claimed second photodetection device, and outputs the claimed second signal. The Examiner further asserts that the wobble amplitude detector 10 of *Miyazaki et al.* corresponds to the amplitude fluctuation detection section recited in claim 1. However, applicants respectfully submit that the wobble amplitude detector 10 does not detect an amplitude fluctuation amount of a second signal as output by the second photodetection device as claimed. The wobble amplitude detector 10 in *Miyazaki et al.* is performing conventional wobble control based on the output of the photodetector 5. The wobble amplitude detector 10 is not even connected to the output of the front photodetector 4, and thus certainly does not constitute the claimed second photodetection device.

More generally, *Miyazaki et al.* describes an optical disk device that utilizes (1) laser power control based on the detection of emitted light (frontlight) and (2) laser power control based on the detection of reflected light from the optical disk. The

laser power control based on the emitted light is used for test emission and obtains an I-L characteristic (Injection current—Light intensity characteristic). The laser power control based on the reflected light is used for compensating for laser power loss due to defects on the optical disk. (See, e.g., Col. 8, ln. 54 – Col. 9, ln. 45).

The wobble amplitude detector 10 in *Miyazaki et al.* extracts light at a certain frequency component from a tracking error signal that is generated by the differential amplifier 20. Such tracking error signal is detected by the photodetector 5 and is based on light that is reflected from the optical disk. The front photodetector 4 of *Miyazaki et al.* converts the power of the optical beam received from the laser 3 to an electric signal and outputs the electric signal to an A/D converter 7. The A/D converter 7 converts the analog signal from the front photodetector 4 to a digital signal. The emitted light control section 8 obtains a desired electric current for driving the laser based on the digital signal. (Col. 13, lns. 10-36). Thus, the emitted light control section 8 also does not correspond to the amplitude fluctuation detection section as recited in claim 1. Further, *Miyazaki et al.* is silent as to laser scoop.

For at least the above reasons, applicants respectfully submit that *Miyazaki et al.* does not teach or render obvious the invention of claim 1. Similar comments apply with respect to claim 10, and the claims which depend from claims 1 and 10. Applicants respectfully request withdrawal of the rejection.

II. CONCLUSION

Accordingly, all claims 1-20 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

/Mark D. Saralino/
Mark D. Saralino
Reg. No. 34,243

DATE: August 18, 2009

The Keith Building
1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113